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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,052	10/23/2003	Yi-Chung Chan	JCLA9844	1566

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EXAMINER	
RIVERO, MINERVA	

ART UNIT	PAPER NUMBER
2627	

DATE MAILED: 09/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/693,052	CHAN, YI-CHUNG	
	Examiner	Art Unit	
	Minerva Rivero	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Kumagai (US Patent 6,005,832).

4. Regarding claim 1, Kumagai discloses a method for discriminating an optical storage medium, comprising:

reading a predetermined range of the optical storage medium to obtain a plurality of data transition points, wherein each of transition regions is defined as an interval

between two neighboring ones of the data transition points (*discrimination signal and measured times t1 and t2*, Col. 14, Lines 24-29 and 39-47, see Fig. 17C, elements 11 and 13, and Fig. 17E, elements 12 and 14);

obtaining a longest transition region among the transition regions (*comparing the measured times and threshold value*, Col. 14, Lines 48-53); and

discriminating a type of the optical storage medium according to a dimension of the longest transition region (Col. 14, Lines 53-55; Col. 15, Lines 60-65; Col. 16, Lines 6-10);

5. Regarding claim 2, Kumagai discloses the discriminating step comprises:

obtaining a time-consumption for reading the longest transition region (*discrimination signal and measured times t1 and t2*, Col. 14, Lines 24-29 and 39-47; Col. 15, Lines 60-65; Col. 16, Lines 6-10); and

comparing the time-consumption with a time threshold to discriminate the optical storage medium (*comparing the measured times and threshold value*, Col. 14, Lines 48-53).

6. Regarding claim 3, Kumagai discloses the optical storage medium is discriminated as a DVD when the time-consumption is smaller than the time threshold (Col. 15, Lines 60-65; Col. 16, Lines 6-10).

7. Regarding claim 4, Kumagai discloses the optical storage medium is discriminated as a CD when the time-consumption is larger than the time threshold (Col. 15, Lines 60-65; Col. 16, Lines 6-10).

7-9

8. Claim 7 is rejected under 35 U.S.C. 102(b) as being anticipated by Yoshida *et al.* (US Patent 5,764,610), hereinafter Yoshida.

9. Regarding claim 7, Yoshida discloses obtaining a clock frequency for reading the optical storage medium (*wobble signal detecting circuit*, Col. 6, Lines 17-20); and comparing the clock frequency threshold to discriminate a type of the optical storage medium (Col. 4, Lines 9-16).

10. Regarding claim 8, Yoshida discloses the optical storage medium is discriminated as a DVD when the clock frequency is larger than the threshold (Col. 4, Lines 9-16; Col. 6, Lines 25-36).

11. Regarding claim 9, Yoshida discloses the optical storage medium is discriminated as a CD when the clock frequency is smaller than the frequency threshold (Col. 4, Lines 9-16; Col. 6, Lines 25-36).

11-13

12. Claim 11 is rejected under 35 U.S.C. 102(b) as being anticipated by Yamada *et al.* (US Patent 5,831,952), hereinafter Yamada.

13. Regarding claim 11, Yamada discloses a method for discriminating an optical storage medium, comprising (Col. 2, Lines 40-42):

projecting a light beam onto the optical storage medium to obtain a distance between a reflection layer and a surface layer of the optical storage medium (Col. 2, Line 62 – Col. 3, Line 5); and

comparing the obtained distance with a distance threshold to discriminate the optical storage medium (Col. 3, Lines 3-5).

14. Regarding claim 12, Yamada discloses the optical storage medium is discriminated as a DVD when the obtained distance is smaller than the distance threshold (*DVD has a thin base substrate*, Col. 3, Lines 4-5).

15. Regarding claim 13, discloses the optical storage medium is discriminated as a CD when the obtained distance is larger than the distance threshold (*CD has a thick base substrate*, Col. 3, Lines 4-5).

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

17. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kumagai in view of Yamamoto *et al.* (US 2002/0126607), hereinafter Yamamoto.

Regarding claim 5, Yamamoto discloses a step of obtaining a clock frequency for reading the optical storage medium (*extracting a clock signal*, [0041], see Fig. 5, element 21).

Therefore it would have been obvious to one ordinarily skilled in the art at the time of the invention to supplement the teachings of Kumagai and have a step of obtaining a clock frequency for reading the optical storage medium, as disclosed by Yamamoto, in order to appropriately reproduce the recorded data.

18. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kumagai in view of Yamamoto, further in view of Hira (US Patent 5,381,392).

Regarding claim 6, the combined teachings of Kumagai and Yamamoto do not explicitly disclose but Hira suggests the optical storage medium is discriminated as a blank disk when the clock frequency is substantially zero (Col. 3, Lines 53-63).

Therefore it would have been obvious to one ordinarily skilled in the art at the time of the invention to supplement the combined teachings of Kumagai and Yamamoto and have an optical storage medium be discriminated as a blank disk when the clock frequency is substantially zero, as suggested by Hira, in order to determine if a disk is blank and thus recordable.

19. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida in view of Hira.

Regarding claim 10, Yoshida does not explicitly disclose but Hira suggests the optical storage medium is discriminated as a blank disk when the clock frequency is substantially zero (Col. 3, Lines 53-63).

Therefore it would have been obvious to one ordinarily skilled in the art at the time of the invention to supplement the teachings of Yoshida and have an optical storage medium be discriminated as a blank disk when the clock frequency is substantially zero, as suggested by Hira, in order to determine if a disk is blank and thus recordable.

20. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada in view of Hira.

21. Regarding claim 14, Yamada does not explicitly disclose but Hira suggests the optical storage medium is discriminated as a blank disk when the clock frequency is substantially zero (Col. 3, Lines 53-63).

Therefore it would have been obvious to one ordinarily skilled in the art at the time of the invention to supplement the teachings of Yamada and have an optical storage medium be discriminated as a blank disk when the clock frequency is substantially zero, as suggested by Hira, in order to determine if a disk is blank and thus recordable.

22. Claims 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada in view of Kumagai.

23. Regarding 15, Yamada does not disclose but Kumagai does suggest a step of reading a predetermined range of the optical storage medium to obtain a plurality of data transition points when the obtained distance is larger than a failure threshold, wherein each of the transition regions is defined as an interval between two neighboring ones of the data transition points (*discrimination signal and measured times t1 and t2*, Col. 14, Lines 24-29 and 39-47, see Fig. 17C, elements 11 and 13, and Fig. 17E, elements 12 and 14).

Therefore it would have been obvious at the time of the invention to one ordinarily skilled in the art to supplement the teachings of Yamada and have a step of reading a predetermined range of the optical storage medium to obtain a plurality of data transition points when the obtained distance is larger than a failure threshold, wherein each of the transition regions is defined as an interval between two neighboring ones of the data transition points, as suggested by Kumagai, in order to effectively discriminate between types of optical disks.

24. Regarding claim 16, Yamada does not disclose but Kumagai does disclose obtaining a longest transition region among the transition regions (*comparing the measured times and threshold value*, Col. 14, Lines 48-53); and

discriminating a type of the optical storage medium according to a dimension of the longest transition region (Col. 14, Lines 53-55; Col. 15, Lines 60-65; Col. 16, Lines 6-10).

Therefore it would have been obvious to one ordinarily skilled in the art at the time of the invention to supplement the teachings of Yamada and obtain a longest transition region among the transition regions and discriminate a type of the optical storage medium according to a dimension of the longest transition region, as disclosed by Kumagain, since different types of optical disks will yield different measured times, resulting in an effective manner to distinguish among them.

25. Regarding claim 17, Yamada does not disclose but Kumagai does disclose the discriminating step comprises:

obtaining a time-consumption for reading the longest transition region (*discrimination signal and measured times t1 and t2*, Col. 14, Lines 24-29 and 39-47; Col. 15, Lines 60-65; Col. 16, Lines 6-10); and

comparing the time-consumption with a time threshold to discriminate the optical storage medium (*comparing the measured times and threshold value*, Col. 14, Lines 48-53).

Therefore it would have been obvious to one ordinarily skilled in the art at the time of the invention to supplement the teachings of Yamada and obtain a time-consumption for reading the longest transition region, and compare the time-consumption with a time threshold to discriminate the optical storage medium, as disclosed by Kumagai, since different types of optical disks will yield different measured times, resulting in an effective manner to distinguish among them.

26. Regarding claim 18, Yamada does not disclose but Kumagai does disclose the optical storage medium is discriminated as a DVD when the time-consumption is smaller than the time threshold and the optical storage medium is discriminates as a CD when the time-consumption is larger than the time threshold (Col. 15, Lines 60-65; Col. 16, Lines 6-10; Col. 15, Lines 60-65; Col. 16, Lines 6-10).

Therefore it would have been obvious to one ordinarily skilled in the art at the

time of the invention to supplement the teachings of Yamada and have optical storage medium discriminated as a DVD when the time-consumption is smaller than the time threshold and the optical storage medium discriminated as a CD when the time-consumption is larger than the time threshold, in order to correctly identify a loaded disk and reproduce the data contained therein appropriately.

27. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada, in view of Yoshida.

28. Regarding claim 19, Yamada does not disclose but Yoshida suggests the step of obtaining a clock frequency for reading the optical storage medium to discriminate the optical storage medium when the obtained distance is larger than a failure threshold (*wobble signal detecting circuit*, Col. 6, Lines 17-20), wherein the clock frequency is compared with a frequency threshold to discriminate a type of the optical storage medium (Col. 4, Lines 9-16).

Therefore it would have been obvious to one ordinarily skilled in the art at the time of the invention to supplement the teachings of Yamada, and have a step of obtaining a clock frequency for reading the optical storage medium to discriminate the optical storage medium when the obtained distance is larger than a failure threshold, wherein the clock frequency is compared with a frequency threshold to discriminate a type of the optical storage medium, as disclosed by Yoshida, since different types of

media require distinct reproduction parameters, resulting in an effective manner to distinguish among them.

29. Regarding claim 20, Yamada does not disclose but Yoshida does disclose the optical storage medium is discriminated as a DVD when the clock frequency is larger than the frequency threshold and the optical storage medium is discriminated as a CD when the clock frequency is smaller than the frequency threshold (Col. 4, Lines 9-16; Col. 6, Lines 25-36; Col. 4, Lines 9-16; Col. 6, Lines 25-36).

Therefore it would have been obvious to one ordinarily skilled in the art at the time of the invention to supplement the teachings of Yamada, and have an optical storage medium discriminated as a DVD when the clock frequency is larger than the frequency threshold and the optical storage medium discriminated as a CD when the clock frequency is smaller than the frequency threshold, as disclosed by Yoshida, in order to correctly identify a loaded disk and reproduce the data contained therein appropriately.

Conclusion

30. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tateishi (US Patent 5,745,460) discloses a disk discriminating method and

apparatus.

Yanagawa *et al.* (US Patent 6,925,039) disclose a device and method for controlling a tilt servo, including an optical disk type identification method.

Grimm (US Patent 6,807,136) discloses a device including means for disk type recognition.

31. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minerva Rivero whose telephone number is (571) 272-7626. The examiner can normally be reached on Monday-Friday 9:00 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on (571) 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MR 9/20/06

WAYNE YOUNG
SUPERVISORY PATENT EXAMINER